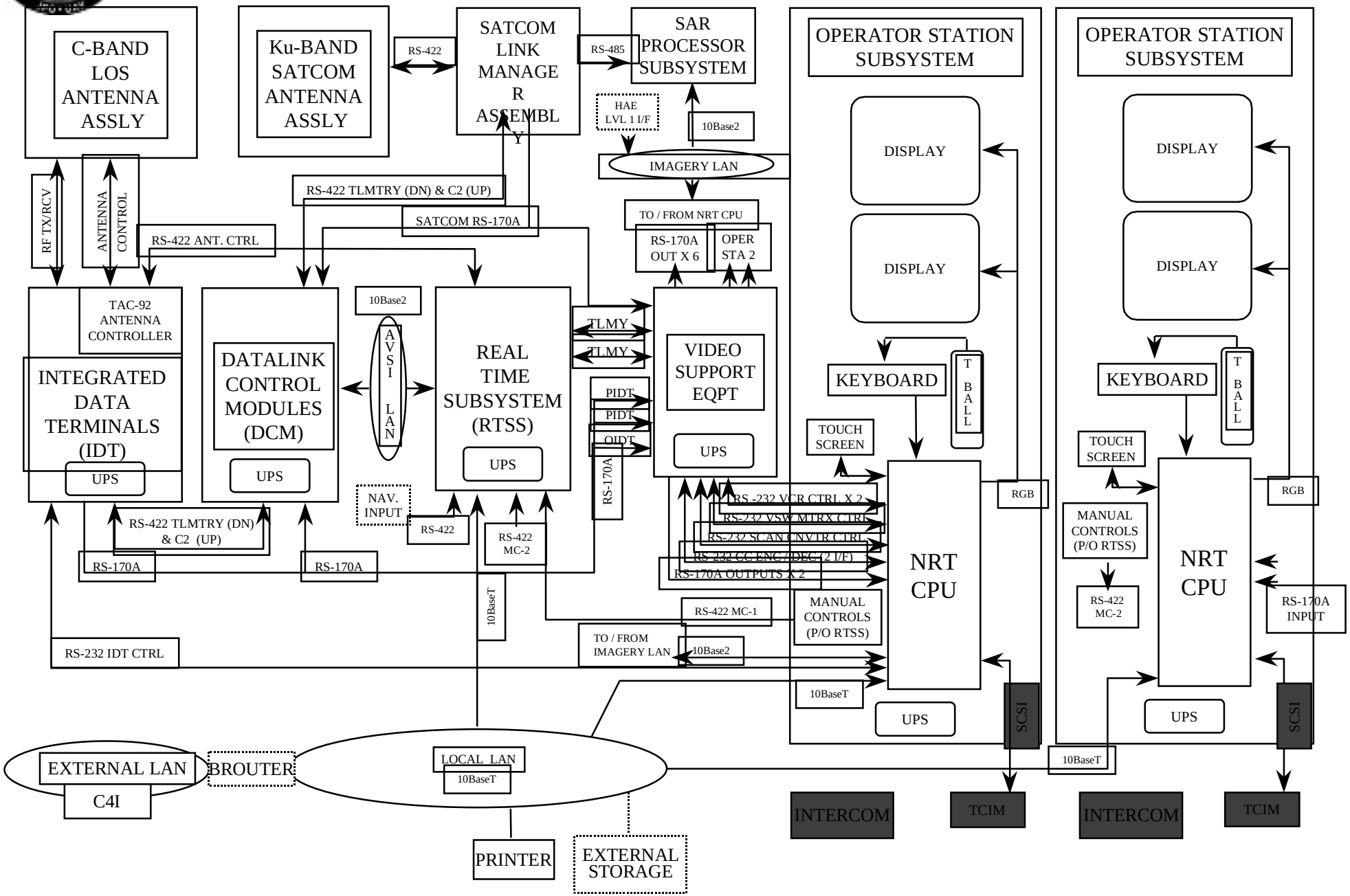
COMMUNICATION SUBSYSTEM HARDWARE CONFIGURATION ITEMS (HWCIs)

TCS COMMUNICATION HARDWARE DESIGN



Communication Requirements Allocated to HWCI Seabased

REQUIREMENTS MATRIX SUMMARY

32 Total SSDD Requirements

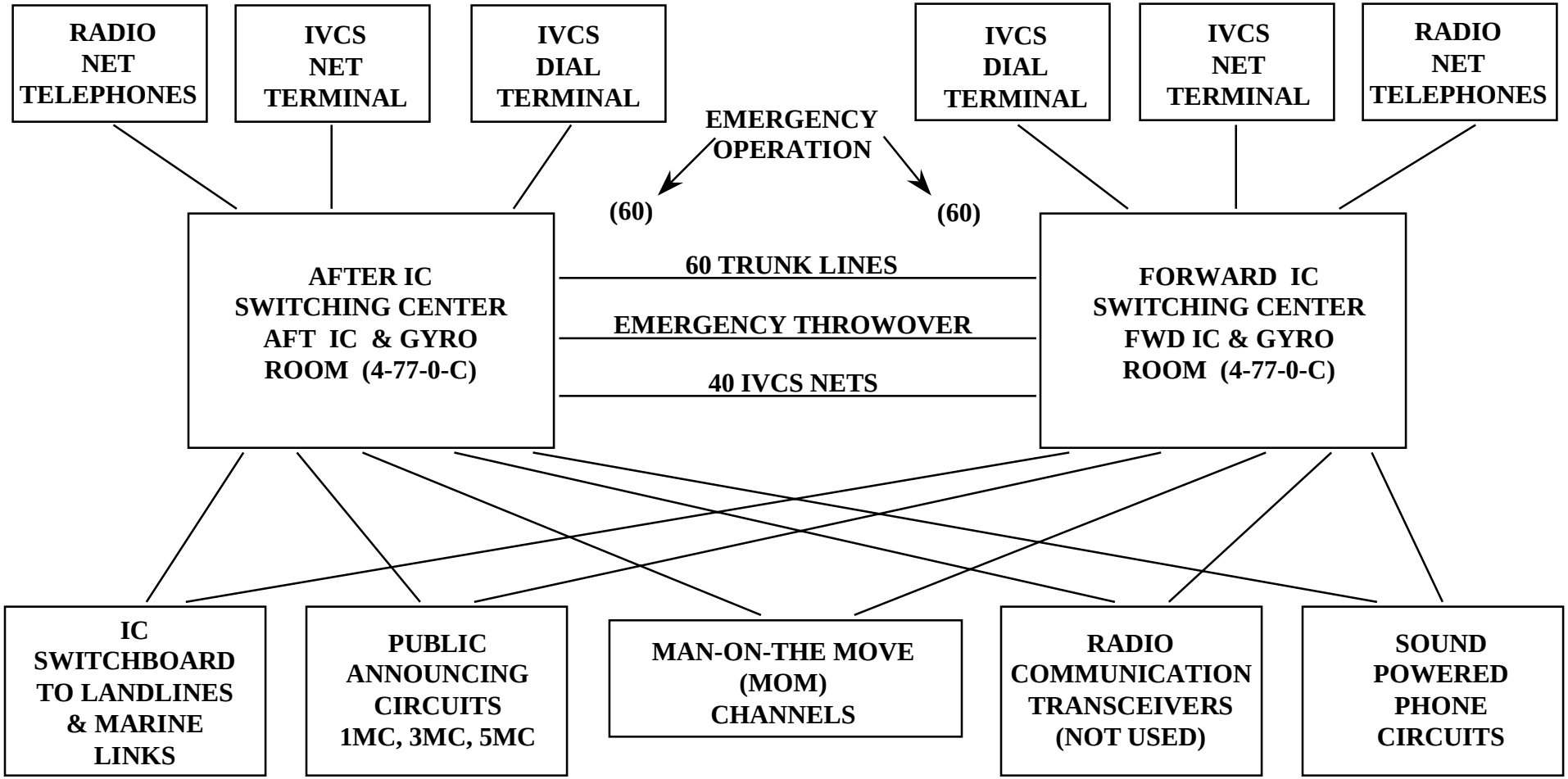
HWCI Requirements to EB allocation

- 15 With EB1
- 21 With EB5

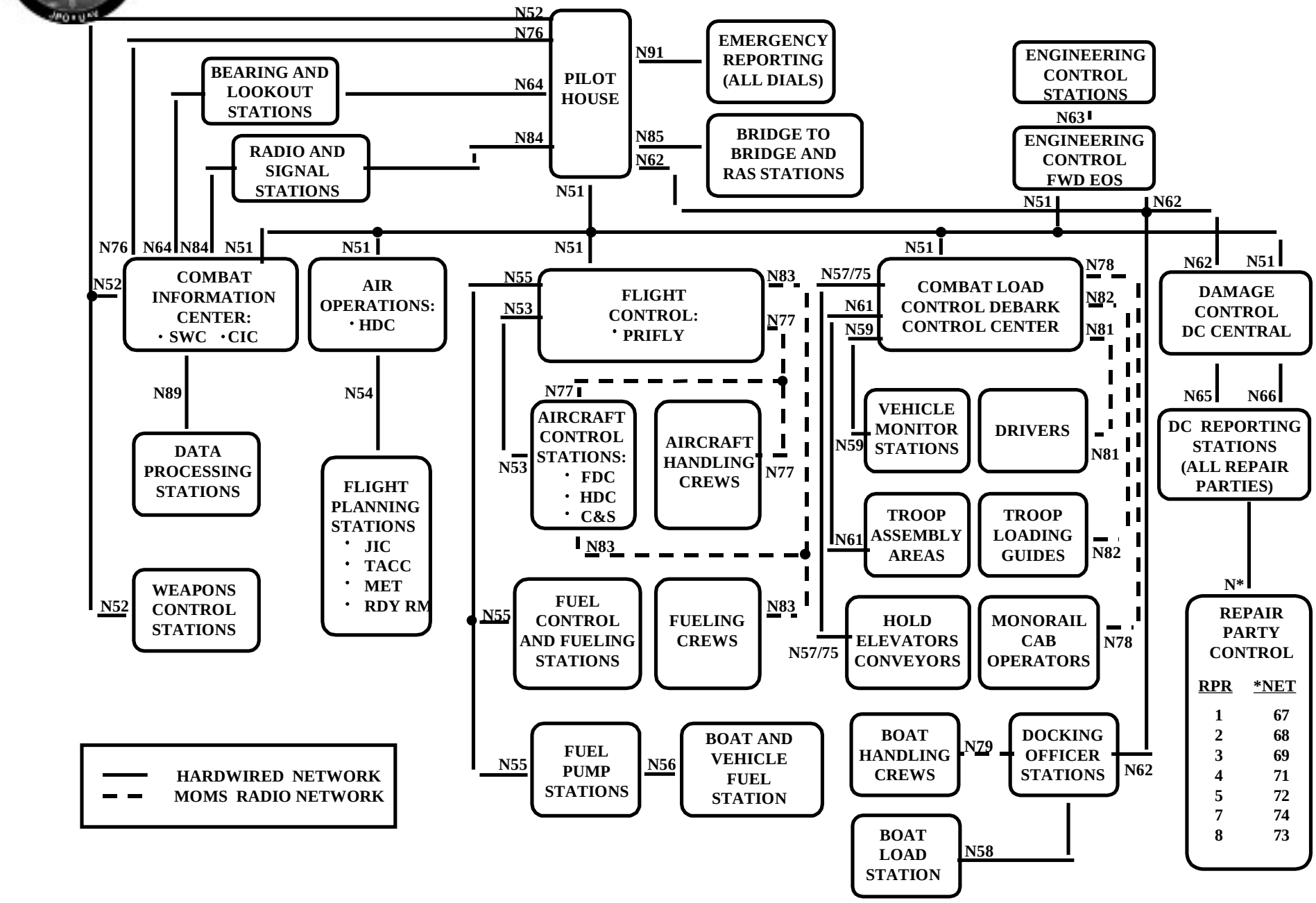
COMMUNICATION SUBSYSTEMS
HWCI FUNCTIONAL DESCRIPTION

The TCS operators require an internal voice communication system that provides the capability to integrate UAV operations with the overall operations being conducted by the ship, as well as a communications system that allows the operators to communicate with each other. Additionally, the TCS operators must have the capability to communicate with other aircraft and with shore stations in support of Safety of Flight (SOF) and mission objective.

INTERIOR VOICE COMMUNICATION SYSTEM (IVCS)
SIMPLIFIED BLOCK DIAGRAM



IVCS PRINCIPAL COMMAND & CONTROL NETS



IVCS NET DESIGNATIONS

Net 51: Captains Battle
Net 52: Weapons Control
Net 53:Aircraft Control

Net 54: Aircraft Information
Net 55: Aircraft Fueling
Net 56: Boat/Vehicle Fuel
Net 57: Conveyor Control
Net 58: Landing Craft
Net 59: Vehicle Control
Net 61: Troop Loading
Net 62: Maneuvering
Net 63: Engineers
Net 64: Bearings/Lookouts
Net 65: Damage Control(Prim)
Net 66: Damage Control(Alt)
Net 67: Repair 1 H
Net 68: Repair 2
Net 69: Repair 3

Net 71: Repair 4
Net 72: Repair 5
Net 73: Repair 8
Net 74: Repair 7 F
Net 75: Cargo Elevator
Net 76: Combat Information
Net 77: Mom Aircraft Control
Net 78: Mom Monorail ontrol
Net 79: Mom Landing Craft
Net 81: Mom Vehicle Control
Net 82: Mom Troop Loading
Net 83: Mom Aircraft Fueling
Net 84: Radio/Signals
Net 85: Replenishment-AtSea
Net 86: Casualty
Net 89: Data Processing
Net 91: Emergency Reporting

INTERIOR VOICE COMMUNICATION SYSTEM

- 40 nets installed (35 available)
- 5 nets are reserved for casualty control (N87, 88, 92, 93, and 94)
- 73 net terminals installed. Each terminal provides access to 1, 2, 3, or 4 dedicated nets)

EXTERIOR COMMUNICATION SYSTEM INTERFACES LHA-1 AND LHD-1 CLASS

Nomenclature	Noun Name	Quan.
AN/ARC-159	UHF Transceiver	1
AN/URC-82	UHF Transceiver	1
AN/URC-93	UHF Transceiver	2
AN/WSC-3(V)11	UHF Transceiver HAVEQUICK	2
AN/WSC-3(V)7	UHF Transceiver (LOS/SAS)	14
AN/WSC-3A(V)	UHF SATCOM Transceiver	4
AN/WSC-3A(V)3	UHF SATCOM Transceiver	2
	TOTAL	26

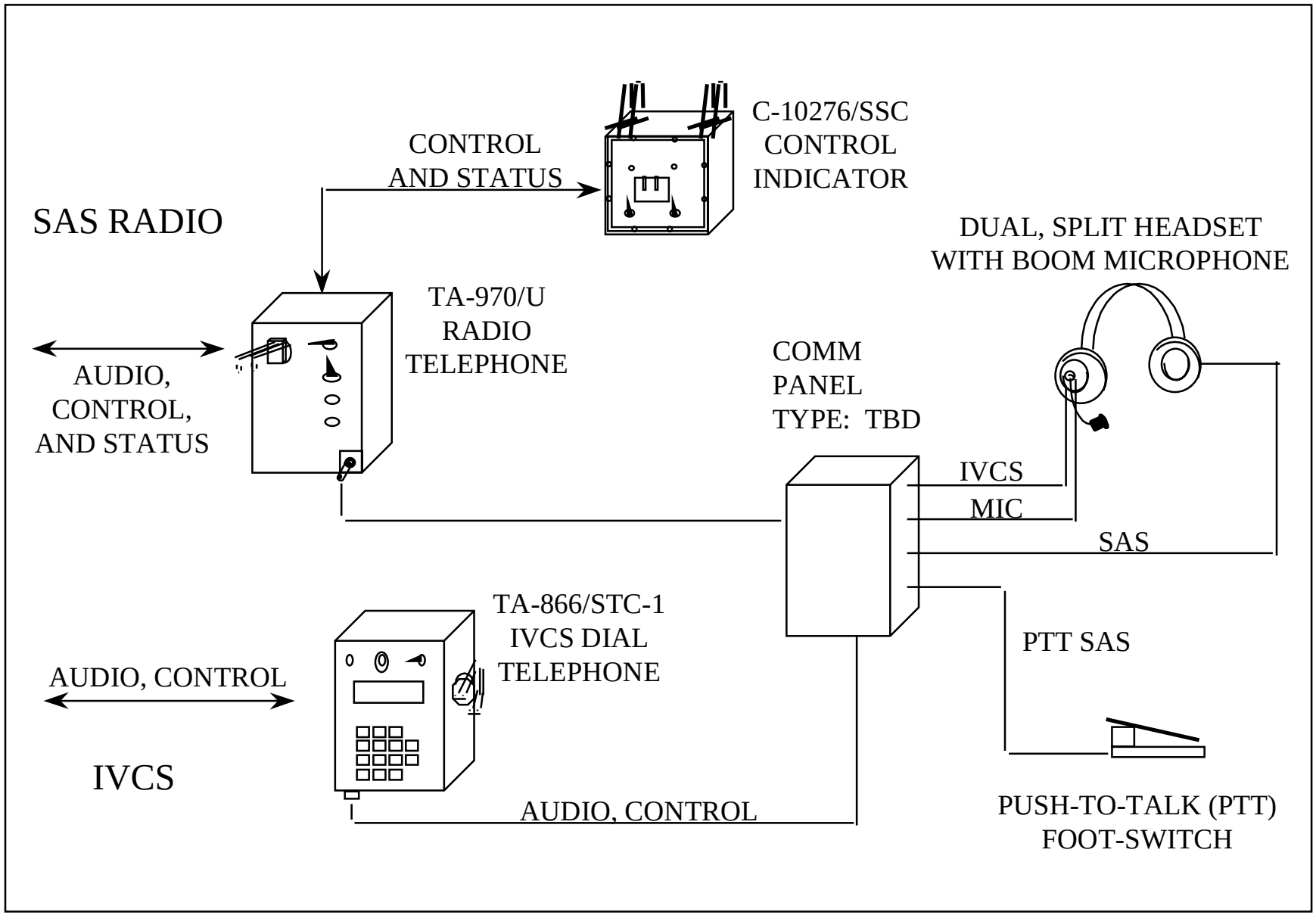
Nomenclature	Noun Name	Quan.
AN/URC-100	UHF Transceiver	2
AN/URC-93(V)1	UHF Transceiver (Link)	2
AN/WSC-3(V)14	UHF Transceiver	19
AN/WSC-3(V)15	UHF LOS/SATCOM Transceiver	6
AN/WSC-3(V)7	UHF Transceiver (LOS/SAS)	2
	TOTAL	31

EXTERIOR COMMUNICATION SYSTEM INTERFACES LHA-1 AND LHD-1 CLASS

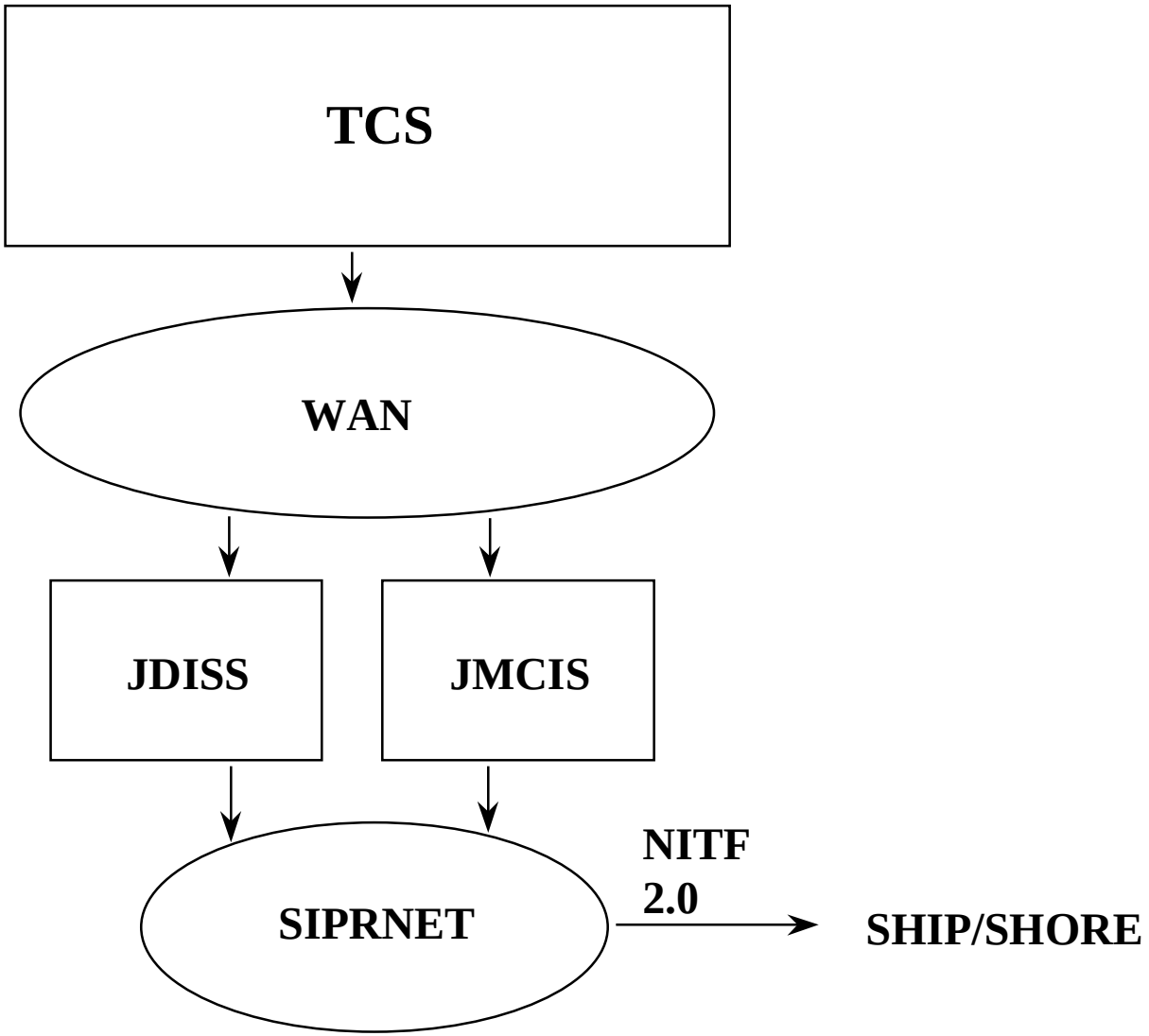
Nomenclature	Noun Name	Quan.
AN/PRC-96	VHF/UHF Transceiver	4
AN/URC-80(V)5	VHF Transceiver	2
AN/VRC-46A	VHF Transceiver	15
AN/VRC-49	VHF Transceiver	6
ICOM ICM-56	VHF Transceiver	1
	TOTAL	28
AN/WSC-6A(V)4	SHF Satellite Transceiver	1
	TOTAL	1

Nomenclature	Noun Name	Quan.
AN/SRC-54	"SINCGARS" VHF Transceiver	2
AN/URC-80(V)6	VHF Transceiver	1
RT-524A/VRC	VHF Transceiver	21
	TOTAL	24
AN/WSC-6	SHF Satellite Transceiver	1
	TOTAL	1

UAV CLOSED COMMS APPROACH



UAV DATA TRANSFER



Information under Investigation

- Environmental Considerations
- Electromagnetic Compatibility
- Power Requirements
- Subsystem Preliminary Equipment Drawings
- Commercial-Off-The-Shelf (COTS)/NDI
- Documentation
- Identification of Support Equipment